

[REDACTED]

#552

IMP-J  
73-078A-01F/02E  
5 MINUTE RESOLUTION IMP-J IMF&PLASMA, FOR IMS

IMP-J  
73-078A-01J/02H/10G  
5 MINUTE RESOLUTION IMP-J IMF&PLASMS PARMs, UCLA

[REDACTED]

IMP-J

5-MIN. IMF + PLASMA FOR IMS TAPE

73-078A-01F, 02E

THIS DATA SET HAS BEEN RESTORED. ORIGINALLY IT CONTAINED ONE 9-TRACK, 1600 BPI TAPE WRITTEN IN BINARY. THERE IS ONE RESTORED TAPE. THE DR TAPE IS A 3480 CARTRIDGE AND THE DS TAPE IS 9-TRACK, 6250 BPI. THE ORIGINAL TAPE WAS CREATED ON AN IBM 3081 COMPUTER AND WAS RESTORED ON THE MRS SYSTEM. THE DR AND DS NUMBERS ALONG WITH THE CORRESPONDING D NUMBER AND TIME SPAN IS AS FOLLOWS:

DR#	DS#	D#	FILES	TIME SPAN
DR005275	DS005275	D048998	1	04/11/77 - 05/21/80

REQ. AGENT  
LSM

RAND NO.  
V0153

ACQ. AGENT  
HKH

IMP J

5 MINUTE RESOLUTION MERGED IMP J IMF AND PLASMA DATA

73-078A-01F

73-078A-02E

This data set ~~exists~~ consists of 1 data tape. The tape characteristics are as follows: 1600 bpi, 9 track, binary, with 1 file of data. The tape was created on the IBM 3081 machine. The time span, D and C number are as listed below.

<u>D#</u>	<u>C#</u>	<u>Time Span</u>
D-48998	C-22543	04/12/77 - 05/23/80



## APPENDIX A

FORMAT OF 5-MIN RESOLUTION MERGED IMP-J IMF-PLASMA TAPE

This IMP-J tape contains 5-minute plasma parameter averages provided by MIT, 5-minute IMF averages computed from GSFC 15.36 sec data, and information on whether the 5-min IMF vector intersects the Earth's bow shock. Only times when IMP-J is in the solar wind are included. There are magnetic field data in every record. Some records have fill data (= 0.0) in the plasma words.

The tape is a 9-track, 1600-bpi, ASCII tape created on an IBM 3081 computer. The tape format is fixed block with a logical record length of 44 words (222 bytes), blocked 17 logical records per physical record. The physical record length is 7480 words (3,774 bytes). The last physical record on the tape may be short, but is an integer multiple of logical records.

The IBM JCL for the DCB parameter used to create the tape was:

NL, 9 TRACK, DEN=3, RECFM=FB, LRECL=222, BLKSIZE=3774

Format of logical data record:

word	type	data
1.	I*2	Year (77, 78, 79, 80)
2.	I*3	DDay (Jan 1 = Day 0)
3.	I*4	Minute of day at start of average (0, 5... 1435)
4.	I*3	Number of 1.28 s IMF values in 5-min <u>B</u> average (note that each 15.36 s average consists of up to 12 1.28 s values)
5.	I*2	Number of 15.36 s IMF values in <u>B</u> average
6.	I*2	Number of points in plasma parameter averages
7.	I*7	$\left\{ \begin{array}{l} X_{GSM} \\ Y_{GSM} \\ Z_{GSM} \end{array} \right\}$ IMP-J position, km
8.	I*7	
9.	I*7	
10.	I*2	$\lambda_s$ Geomagnetic Latitude of Sun (degree)
11.	F4.1	$\langle  B  \rangle$ nT
12.	F5.1	$\langle B_{X_{GSM}} \rangle$ nT

APPENDIX A (continued)

word	type	data
13.	F5.1	$\langle B_{Y_{GSM}} \rangle$ nT
14.	F5.1	$\langle B_{Z_{GSM}} \rangle$ nT
15.	F4.1	$(\langle B_X \rangle^2 + \langle B_Y \rangle^2 + \langle B_Z \rangle^2)^{1/2}$
16.	F5.1	$\theta_{B_{GSM}}$ degrees (from $\langle B_X \rangle$ , $\langle B_Y \rangle$ , $\langle B_Z \rangle$ )
17.	F5.1	$\phi_{B_{GSM}}$ degrees (from $\langle B_X \rangle$ , $\langle B_Y \rangle$ )
18.	F4.1	$\sigma_{B_X}$
19.	F4.1	$\sigma_{B_Y}$
20.	F4.1	$\sigma_{B_Z}$
21.	F4.1	$\{ \langle \sigma_x^2 + \sigma_y^2 + \sigma_z^2 \rangle \}^{1/2}$ these $\sigma$ 's arise in the generation of 15. 36 s averages from 1.28s values
22.	F4.1	Maximum value of any of the $\sigma$ 's contributing to word 21
23.	I*4	$v$ , km/s (bulk flow speed)
24.	I*4	$\sigma_v$ , km/s
25.	F5.1	$N$ , $\text{cm}^{-3}$ (proton density)
26.	F5.1	$\sigma_N$ , $\text{cm}^{-3}$
27.	I*3	$w$ , km/s (thermal speed)
28.	I*3	$\sigma_w$ , km/s
29.	F5.1	$\phi_v$ , degrees, flow azimuth (+ from west)
30.	F5.1	$\sigma_\phi$ , degrees
31.	F5.1	$\theta_v$ , degrees, flow latitude (+ from south)
32.	F5.1	$\sigma_\theta$ , degrees
33.	I*7	$Y_{GSE}$ (IMP-J position, km)
34.	I*7	$Z_{GSE}$ (IMP-J position, km)

*ASCI II*

APPENDIX A (concluded)

word	type	data
35.	F5.1	$\langle B_{Y\text{GSE}} \rangle$ nT
36.	F5.1	$\langle B_{z\text{GSE}} \rangle$ nT
37.	I*8	X
38.	I*8	Y } km, in GSE, point of intersection between IMF line through IMP-J, and the bow shock (see footnote)
39.	I*8	Z
40.	I*8	Distance (km) along <u>B</u> between IMP-J and bow shock intersection point
41.	F4.1	Angle (in degrees) between <u>B</u> and bow shock normal at intersection
42.	I*6	$B_z * V$ (nT x km/s)
43.	E10.3	$E = 2 \times 10^{14} \times V \times B^2 \times \sin^4(1/2 \tan^{-1} \left( \frac{ B_{y\text{GSM}} }{B_{z\text{GSM}}} \right))$
44.	E10.3	$1.67 \times 10^{-14} \times N \times V^2$ , dynamic pressure in dynes/cm <sup>2</sup>

NOTES: In word 31  $\theta_v$  (on this tape) =  $\theta_v$  (on MIT tape) - (.25 + 1.125T) deg  
where T is fractional years since 1975.0

In words 42 and 43, V = 400 is used for records with no plasma data.

Words 37-40 = -999 and word 41 = 99.9 for no-intersection cases.

(Intersection calculations are based on a model bow shock - Fairfield,  
J. Geophys. Res., 76, 6700 - adjusted for simultaneously observed solar wind  
pressure when available.)

**B34520-000A****DATA ANNOUNCEMENT BULLETIN**

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

NATIONAL SPACE SCIENCE DATA CENTER/  
WORLD DATA CENTER A FOR ROCKETS AND SATELLITES  
Code 601

Goddard Space Flight Center • Greenbelt, Maryland 20771

November 1982

AVAILABILITY OF IMP-J (IMP 8) INTERPLANETARY  
FIELD AND PLASMA DATA FOR THE INTERNATIONAL  
MAGNETOSPHERIC STUDY PERIOD (IMS)INTRODUCTION

One recommendation of the IMS Assessment Symposium, held at NSSDC in May of 1981, was that 5-min resolution composite interplanetary field and plasma data sets be generated and made available to the scientific community. The purpose of this *Data Announcement Bulletin* (DAB) is to announce the availability of such a data set of IMP-J (IMP 8) field and plasma data.

The data set was compiled by Joseph H. King of the Goddard Space Flight Center Laboratory for Extraterrestrial Physics, using data of that Laboratory and of the Massachusetts Institute of Technology. The magnetic field data are from the Goddard Space Flight Center magnetometer (P.I.: N. F. Ness), and the plasma data are from the Massachusetts Institute of Technology Faraday cup experiment (P.I.: H. S. Bridge). The plots and listings were generated by Charles A. Wallace of the NSSDC staff.

DATA SET MEDIA AND TIME COVERAGE

There are actually two data sets available, one on a single magnetic tape (NSSDC ID: 73-078A-02E) and one on microfiche (NSSDC ID: 73-078A-02F). The microfiche data set consists of 11 fiche of plots displaying a subset of 3 parameters from the tape, and 41 fiche of listings giving a larger subset of parameters from the tape.

The tape data set spans the period April 12, 1977, to May 24, 1980. The microfiche data set covers a shorter interval, ending December 31, 1979. This covers a period from shortly before launch of the IMS-dedicated spacecraft, the ESA-GEOS 1 synchronous orbit spacecraft of the European Space Agency, through the end of the IMS data acquisition phase (December 31, 1979) at which time IMP-J was in the solar wind. (Recall that in its ~ 35 Re, 12.5 day orbit, IMP-J spends 4-5 days per orbit out of the solar wind, in the Earth's magnetosheath and magnetotail regions.)

## EXPECTED READER USE OF PLOTS, LISTINGS, AND TAPE

The purpose of the plots is to enable the reader to identify times when interplanetary variations are likely to have interesting magnetospheric effects. On the other hand, the purpose of the listings is to permit the reader to quantify the state of the interplanetary medium for previously identified interesting intervals of limited durations; either the listed parameters, or others readily computed therefrom, may be of interest. The purpose of the tape data set, in addition to being the source of the plots and listings data set, is to enable statistical studies and to enable the quantification of the interplanetary medium for individual intervals whose long duration renders working from the data listing inconvenient.

## COMPILEDATION OF THE TAPE DATA SET

This merged data set was generated as follows. First a 5-min IMF tape was created. This tape contained 5-min averages of 15.36 s resolution field parameters for hours when, based on magnetic field data signatures, IMP-J was judged to be beyond the Earth's bow shock for the entire hour. Plasma parameters, averaged at MIT over ~ 1-2 min resolution, were taken from an MIT-supplied tape for the times of the IMF records, and were merged onto the IMF tape. The resulting tape is available to the scientific community from NSSDC. Its format is shown in Appendix A. Note that in addition to basic field and plasma data, information is given on magnetic connectivity between IMP-J and the Earth's bow shock. There are field data in all records (whose number, 136325, represents a 42% overall data coverage between the first and last times), and there are plasma data in 79% of the records. This tape was used to generate the associated plots and listings data set.

## DESCRIPTION OF PLOTS

Rather than plot each of several interplanetary parameters, computed parameters for each of two basically different ways the solar wind affects the magnetosphere are displayed. Sample plots are shown in Appendix B. Interplanetary pressure variations are responsible for large scale magnetospheric compressions and relaxations. For example, shock associated interplanetary pressure enhancements cause rapid magnetospheric compressions recorded at the Earth's surface as geomagnetic storm sudden commencements. One parameter plotted is interplanetary pressure,  $kNV^2$ . After computing pressure in units of dynes/cm<sup>2</sup> ( $N$  in cm<sup>-3</sup>,  $V$  in km/s,  $k = 1.67 \times 10^{-14}$ ), it is plotted logarithmically on a scale from 1 to 100. Because of the neglect of heavier nuclei, pressures are underestimated by typically 20%. It should be noted that the magnetopause standoff distance is proportional to the sixth root of the solar wind pressure.

The other mode of interaction between the solar wind and the magnetosphere is electrodynamic. Many studies have shown that this interaction depends on solar wind speed and on the intensity and orientation of the IMF. The more nearly antiparallel the IMF and geomagnetic fields are in their interaction region, the stronger the interaction. However, the details of the interaction mechanism, and hence the most appropriate combination of interplanetary parameters, are problems on which a consensus has not yet been reached. For

example, since 1978 Akasofu and coworkers have advocated  $\epsilon = l_0^2 V B^2 \sin^4(\theta/2)$  as the most appropriate parameter, where  $V$ ,  $B$ ,  $\theta$ , and  $l_0$  are flow speed, magnetic field intensity, polar angle of the Y-Z projection of the IMF vector, and an empirically determined effective magnetospheric cross-sectional radius. However the simple product  $B_z * V$  ( $B_z$  in GSM coordinates), which is proportional to the y component of the solar wind convection electric field, has been used for a yet longer period and continues to be favored by many.

Both  $\epsilon$  and  $B_z * V$  were plotted on the same panel.  $\epsilon$  was computed in units of ergs/s, after which  $\epsilon$  (ergs/s)  $/ 3.2 \times 10^{17}$  was plotted logarithmically from 1 to 100.  $B_z * V$  was computed in units of volts/m [ $3 \times 10^4 \times B_z$  (nT)  $\times V$  (km/s) / c ( $3 \times 10^{10}$  cm/s)], after which  $-B_z * V$  (volts/m)  $\times 10^4$  was plotted logarithmically from 1 to 100. These scales were chosen to yield profiles only when the solar-wind-to-magnetosphere energy transfer is expected to be very significant ( $B_z * V < 0$ ,  $\epsilon > 3.2 \times 10^{17}$ ). It may be observed that these two parameters generally track each other well. Since most  $\sim 5$  min scale variations in these parameters follow from field variations rather than flow speed variations, mean speeds (400 km/s) were used for those 5-min records having field data but no plasma data. On the plots, such times are identifiable by the presence of  $\epsilon$  and  $B_z * V$  traces and the absence of a simultaneous pressure trace. In order to avoid the ambiguity between data gaps and off-scale parameter values, off-scale values have been plotted near the bottom or top of the appropriate panel.

#### DESCRIPTIONS OF DATA LISTINGS

The data listings provide the basic field and plasma parameters, as well as, the computed, plotted parameters. A partial listing is shown in Appendix C. Field parameters include the average field magnitude, Cartesian components in solar magnetospheric coordinates, and the vector standard deviation--i.e.  $(\sigma_x^2 + \sigma_y^2 + \sigma_z^2)^{1/2}$  and the field azimuth angle. Plasma parameters include the bulk flow speed (km/s), proton density ( $\text{cm}^{-3}$ ), proton temperature (deg K, times  $10^{-3}$ ), and the flow longitude and latitude angles (deg). These angles are positive for flow from west and from south of the sun, respectively. In preparing this data compilation, it was noted that the flow latitude angle became increasingly positive with time. Over the 1975-1980 period, the trend could be reasonably fit with the linear equation: Theta (deg) = 0.25 +  $1.125 * T$ , where  $T$  is fractional years since 1975.0. In consultation with MIT personnel, this trend was attributed to instrumental effects, and it was subtracted from the MIT-supplied data before generating the composite field/plasma tape and listing therefrom.

The computed parameters listed are pressure (dynes/cm<sup>2</sup>, times  $10^{-9}$ ),  $\epsilon$  (ergs/s, times  $10^{-16}$ ), and  $B_z * V$  (nT\*km/s). Note that between the plots and listings,  $\epsilon$  involves a different normalization factor ( $3.2 \times 10^{17}$  vs  $10^{16}$ ), and  $B_z * V$  involves different units (volts/m vs. nT\*km/s; 1 volt/m =  $10^6$  nT\*km/s). As noted above,  $V = 400$  km/s was assumed in computing both  $\epsilon$  and  $B_z * V$  for records having field data but no plasma data.

ORDERING INFORMATION

When making inquiries about the data, please refer to the NSSDC IDs:

73-078A-02E for the tape data set  
73-078A-02F for the microfiche data set

Researchers residing in the United States should direct inquiries to

National Space Science Data Center  
Code 601.4  
Goddard Space Flight Center  
Greenbelt, Maryland 20771  
Telephone: (301) 344-6695  
FTS: 344-6695

Researchers who reside outside the United States should direct inquiries to

World Data Center A for Rockets and Satellites  
Code 601  
Goddard Space Flight Center  
Greenbelt, Maryland 20771, U.S.A.  
Telephone: (301) 344-6695  
Telex: NASCOM GBLT 89675

## APPENDIX A

### FORMAT OF 5-MIN RESOLUTION MERGED IMP-J IMF-PLASMA TAPE

This IMP-J tape contains 5-minute plasma parameter averages provided by MIT, 5-minute IMF averages computed from GSFC 15.36 sec data, and information on whether the 5-min IMF vector intersects the Earth's bow shock. Only times when IMP-J is in the solar wind are included. There are magnetic field data in every record. Some records have fill data (= 0.0) in the plasma words.

The tape is a 9-track, 1600-bpi, binary tape created on an IBM 3081 computer. The tape format is fixed block with a logical record length of 45 words (180 bytes), blocked 150 logical records per physical record. The physical record length is 6750 words (27,000 bytes). The last physical record on the tape may be short, but is an integer multiple of logical records.

The IBM JCL for the DCB parameter used to create the tape was:

NL, 9 TRACK, DEN=3, RECFM=FB, LRECL=180, BLKSIZE=27000

Format of logical data record:

word	type	data
1.	I*4	Year (77, 78, 79, 80)
2.	I*4	DDay (Jan 1 = Day 0)
3.	I*4	Minute of day at start of average (0, 5... 1435)
4.	I*4	Number of 1.28 s IMF values in 5-min <u>B</u> average (note that each 15.36 s average consists of up to 12 1.28 s values)
5.	I*4	Number of 15.36 s IMF values in <u>B</u> average
6.	I*4	Number of points in plasma parameter averages
7.	R*4	X <sub>GSM</sub>
8.	R*4	Y <sub>GSM</sub>
9.	R*4	Z <sub>GSM</sub>
10.	R*4	$\lambda_s$ Geomagnetic Latitude of Sun (degree)
11.	R*4	$\langle  B  \rangle$ nT
12.	R*4	$\langle B_{X_{GSM}} \rangle$ nT

APPENDIX A (continued)

word	type	data
13.	R*4	$\langle B_{Y_{GSM}} \rangle$ nT
14.	R*4	$\langle B_{Z_{GSM}} \rangle$ nT
15.	R*4	$(\langle B_X \rangle^2 + \langle B_Y \rangle^2 + \langle B_Z \rangle^2)^{1/2}$
16.	R*4	$\theta_{B_{GSM}}$ degrees (from $\langle B_X \rangle$ , $\langle B_Y \rangle$ , $\langle B_Z \rangle$ )
17.	R*4	$\phi_{B_{GSM}}$ degrees (from $\langle B_X \rangle$ , $\langle B_Y \rangle$ )
18.	R*4	$\sigma_{B_X}$
19.	R*4	$\sigma_{B_Y}$
20.	R*4	$\sigma_{B_Z}$
21.	R*4	$\{\sigma_X^2 + \sigma_Y^2 + \sigma_Z^2\}^{1/2}$ these $\sigma$ 's arise in the generation of 15.36 s averages from 1.28s values
22.	R*4	Maximum value of any of the $\sigma$ 's contributing to word 21
23.	R*4	v, km/s (bulk flow speed)
24.	R*4	$\sigma_v$ , km/s
25.	R*4	N, $\text{cm}^{-3}$ (proton density)
26.	R*4	$\sigma_N$ , $\text{cm}^{-3}$
27.	R*4	w, km/s (thermal speed)
28.	R*4	$\sigma_w$ , km/s
29.	R*4	$\phi_v$ , degrees, flow azimuth (+ from west)
30.	R*4	$\sigma_\phi$ , degrees
31.	R*4	$\theta_v$ , degrees, flow latitude (+ from south)
32.	R*4	$\sigma_\theta$ , degrees
33.	R*4	$Y_{GSE}$ (IMP-J position, km)
34.	R*4	$Z_{GSE}$ (IMP-J position, km)

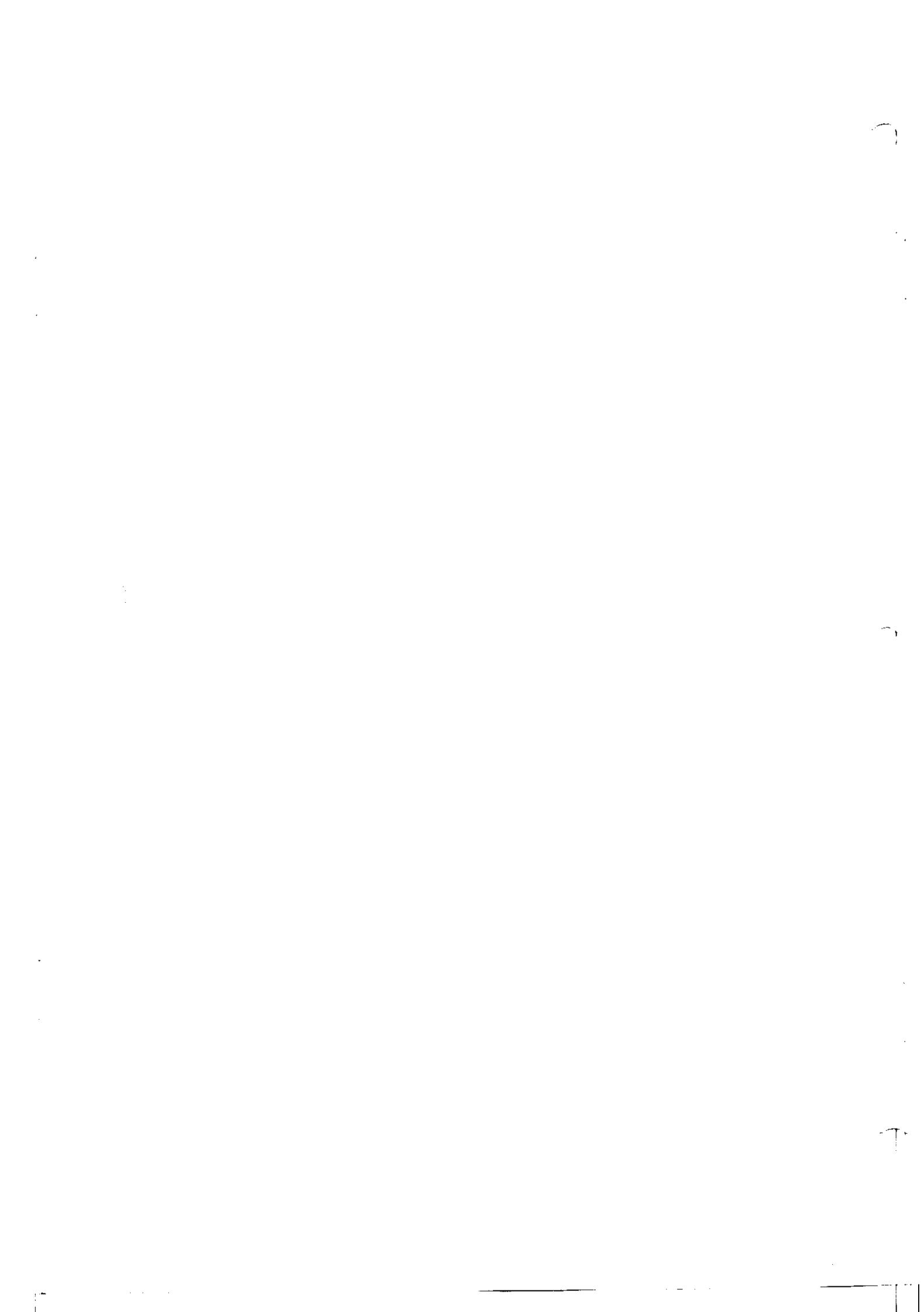
## APPENDIX A (concluded)

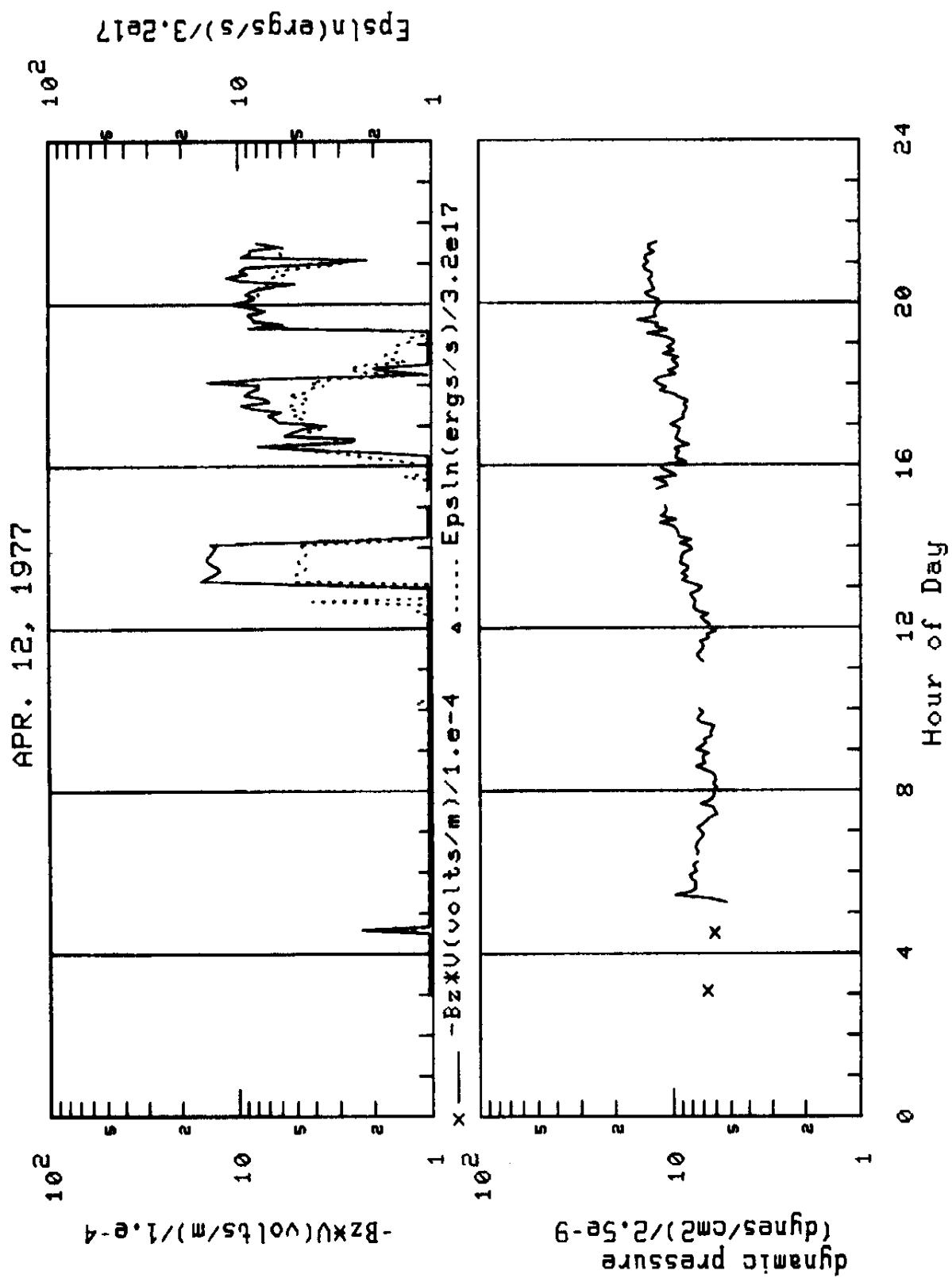
word	type	data
35.	R*4	$\langle B_{Y\text{GSE}} \rangle$ nT
36.	R*4	$\langle B_{Z\text{GSE}} \rangle$ nT
37.	R*4	X
38.	R*4	Y
		km, in GSE, point of intersection between IMF line through IMP-J, and the bow shock (see footnote)
39.	R*4	Z
40.	R*4	Distance (km) along $\underline{B}$ between IMP-J and bow shock intersection point
41.	R*4	Angle (in degrees) between $\hat{B}$ and bow shock normal at intersection
42.	R*4	$B_z * V$ (nT x km/s)
43.	R*4	$E$ (ergs/s) = $2 \times 10^{14} \times V \times B^2 \times \sin^4(1/2 \tan^{-1} \left( \frac{ B_{Y\text{GSM}} }{B_{Z\text{GSM}}} \right))$
44.	R*4	$1.67 \times 10^{-14} \times N \times V^2$ , dynamic pressure in dynes/cm <sup>2</sup>
45.		Spare

NOTES: In word 31  $\theta_v$  (on this tape) =  $\theta_v$  (on MIT tape) - (.25 + 1.125T) deg where T is fractional years since 1975.0

In words 42 and 43, V = 400 is used for records with no plasma data.

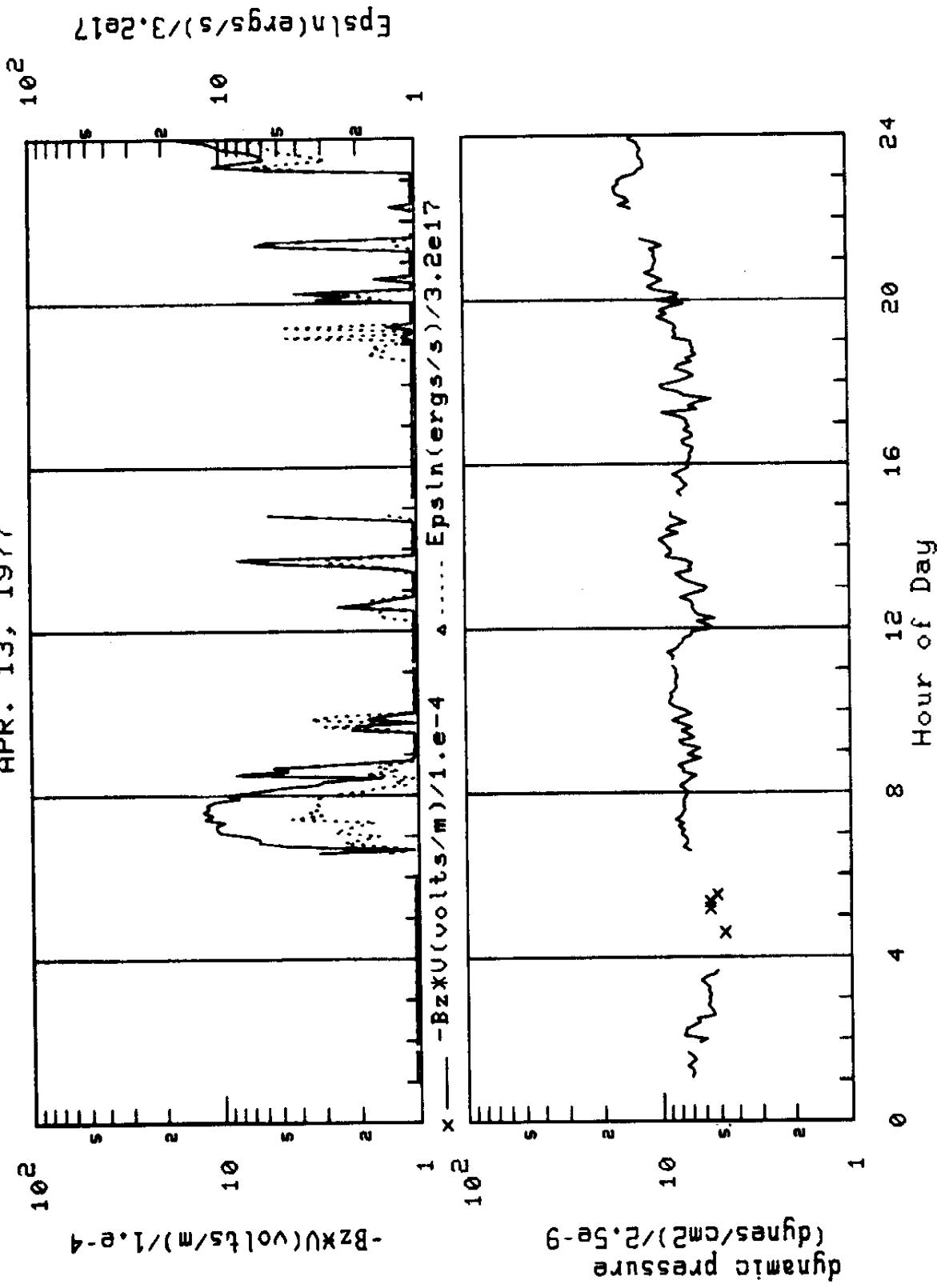
Words 37-41 = -999. for no-intersection cases. (Intersection calculations are based on a model bow shock - Fairfield, J. Geophys. Res., 76, 6700 - adjusted for simultaneously observed solar wind pressure when available.)

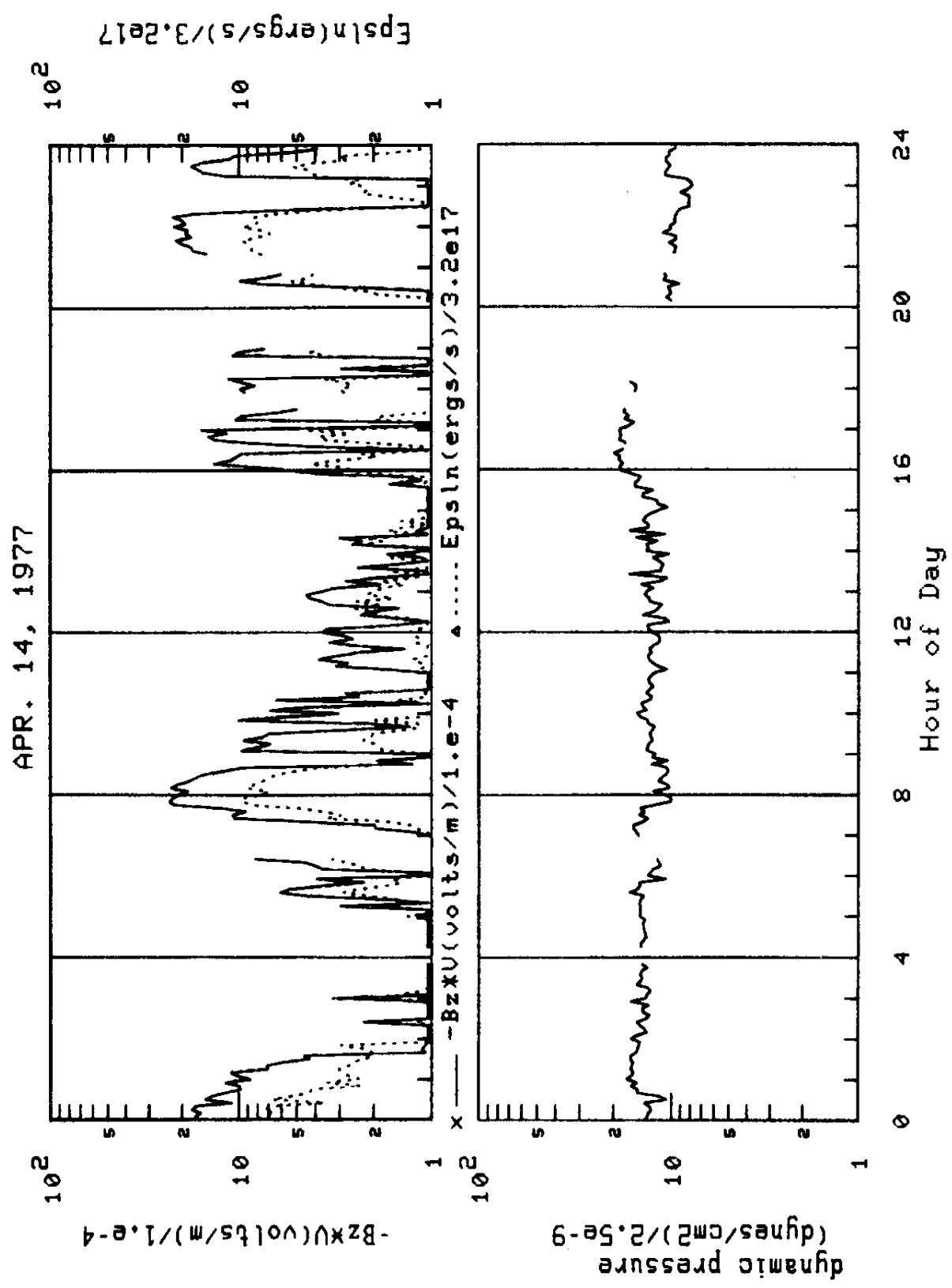


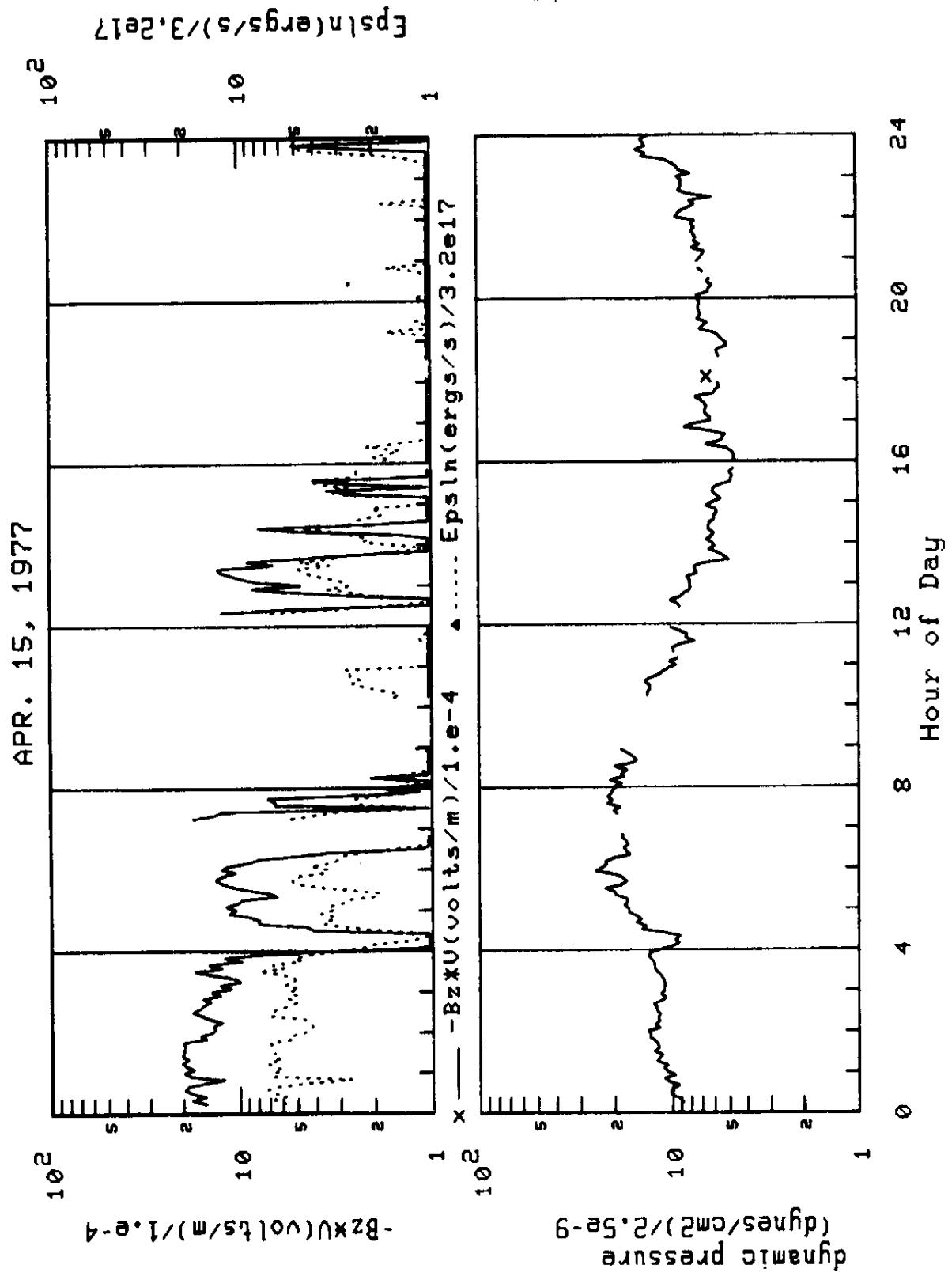


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APR. 13, 1977







APR. 12, 1977

IMMEDIATE POSITION IN CERTAIN COORDINATES: X(-12.3); Y(-32.9); Z(-1.8) Page 1





APR. 12, 1977				IMP-J POSITION IN GSM COORDINATES: $x(-2.3)$ , $y(-32.4)$ , $z(-4.0)$				Page 4			
FIELD	COORD.	CSN	SIGNA	PHI	PLASMA	PRESS	EPSLNZ	BZU	5	6	7
MAGNETIC FIELD BY BZ		-1.3	-1.3	317.	76.	20.7	7.9	-681.5	-719.7	-916.5	-1126.5
MAGNETIC FIELD BY BX		4.1	4.1	318.	76.	22.4	8.0	-767.4	-776.7	-144.5	-123.5
MAGNETIC FIELD BY BY		6.1	6.1	319.	76.	23.1	8.1	-144.5	-176.3	-193.5	-213.5
MAGNETIC FIELD BY BX		17.3	17.3	320.	76.	23.8	8.1	-176.3	-236.6	-355.5	-355.5
MAGNETIC FIELD BY BY		17.7	17.7	321.	76.	24.5	8.1	-236.6	-272.7	-355.5	-355.5
MAGNETIC FIELD BY BX		18.1	18.1	322.	76.	25.2	8.1	-272.7	-312.0	-355.5	-355.5
MAGNETIC FIELD BY BY		18.5	18.5	323.	76.	25.9	8.1	-312.0	-355.5	-355.5	-355.5
MAGNETIC FIELD BY BX		18.9	18.9	324.	76.	26.6	8.1	-355.5	-381.6	-381.6	-381.6
MAGNETIC FIELD BY BY		19.3	19.3	325.	76.	27.3	8.1	-381.6	-414.7	-414.7	-414.7
MAGNETIC FIELD BY BX		19.7	19.7	326.	76.	28.0	8.1	-414.7	-447.8	-447.8	-447.8
MAGNETIC FIELD BY BY		20.1	20.1	327.	76.	28.7	8.1	-447.8	-479.9	-479.9	-479.9
MAGNETIC FIELD BY BX		20.5	20.5	328.	76.	29.4	8.1	-479.9	-511.9	-511.9	-511.9
MAGNETIC FIELD BY BY		20.9	20.9	329.	76.	30.1	8.1	-511.9	-543.9	-543.9	-543.9
MAGNETIC FIELD BY BX		21.3	21.3	330.	76.	30.8	8.1	-543.9	-575.9	-575.9	-575.9
MAGNETIC FIELD BY BY		21.7	21.7	331.	76.	31.5	8.1	-575.9	-607.9	-607.9	-607.9
MAGNETIC FIELD BY BX		22.1	22.1	332.	76.	32.2	8.1	-607.9	-639.9	-639.9	-639.9
MAGNETIC FIELD BY BY		22.5	22.5	333.	76.	32.9	8.1	-639.9	-671.9	-671.9	-671.9
MAGNETIC FIELD BY BX		22.9	22.9	334.	76.	33.6	8.1	-671.9	-703.9	-703.9	-703.9
MAGNETIC FIELD BY BY		23.3	23.3	335.	76.	34.3	8.1	-703.9	-735.9	-735.9	-735.9
MAGNETIC FIELD BY BX		23.7	23.7	336.	76.	35.0	8.1	-735.9	-767.9	-767.9	-767.9
MAGNETIC FIELD BY BY		24.1	24.1	337.	76.	35.7	8.1	-767.9	-800.0	-800.0	-800.0
MAGNETIC FIELD BY BX		24.5	24.5	338.	76.	36.4	8.1	-800.0	-832.1	-832.1	-832.1
MAGNETIC FIELD BY BY		24.9	24.9	339.	76.	37.1	8.1	-832.1	-864.2	-864.2	-864.2
MAGNETIC FIELD BY BX		25.3	25.3	340.	76.	37.8	8.1	-864.2	-896.3	-896.3	-896.3
MAGNETIC FIELD BY BY		25.7	25.7	341.	76.	38.5	8.1	-896.3	-928.4	-928.4	-928.4
MAGNETIC FIELD BY BX		26.1	26.1	342.	76.	39.2	8.1	-928.4	-960.5	-960.5	-960.5
MAGNETIC FIELD BY BY		26.5	26.5	343.	76.	39.9	8.1	-960.5	-992.6	-992.6	-992.6
MAGNETIC FIELD BY BX		26.9	26.9	344.	76.	40.6	8.1	-992.6	-1024.7	-1024.7	-1024.7
MAGNETIC FIELD BY BY		27.3	27.3	345.	76.	41.3	8.1	-1024.7	-1056.8	-1056.8	-1056.8
MAGNETIC FIELD BY BX		27.7	27.7	346.	76.	42.0	8.1	-1056.8	-1088.9	-1088.9	-1088.9
MAGNETIC FIELD BY BY		28.1	28.1	347.	76.	42.7	8.1	-1088.9	-1121.0	-1121.0	-1121.0
MAGNETIC FIELD BY BX		28.5	28.5	348.	76.	43.4	8.1	-1121.0	-1153.1	-1153.1	-1153.1
MAGNETIC FIELD BY BY		28.9	28.9	349.	76.	44.1	8.1	-1153.1	-1185.2	-1185.2	-1185.2
MAGNETIC FIELD BY BX		29.3	29.3	350.	76.	44.8	8.1	-1185.2	-1217.3	-1217.3	-1217.3
MAGNETIC FIELD BY BY		29.7	29.7	351.	76.	45.5	8.1	-1217.3	-1249.4	-1249.4	-1249.4
MAGNETIC FIELD BY BX		30.1	30.1	352.	76.	46.2	8.1	-1249.4	-1281.5	-1281.5	-1281.5
MAGNETIC FIELD BY BY		30.5	30.5	353.	76.	46.9	8.1	-1281.5	-1313.6	-1313.6	-1313.6
MAGNETIC FIELD BY BX		30.9	30.9	354.	76.	47.6	8.1	-1313.6	-1345.7	-1345.7	-1345.7
MAGNETIC FIELD BY BY		31.3	31.3	355.	76.	48.3	8.1	-1345.7	-1377.8	-1377.8	-1377.8
MAGNETIC FIELD BY BX		31.7	31.7	356.	76.	49.0	8.1	-1377.8	-1409.9	-1409.9	-1409.9
MAGNETIC FIELD BY BY		32.1	32.1	357.	76.	49.7	8.1	-1409.9	-1442.0	-1442.0	-1442.0
MAGNETIC FIELD BY BX		32.5	32.5	358.	76.	50.4	8.1	-1442.0	-1474.1	-1474.1	-1474.1
MAGNETIC FIELD BY BY		32.9	32.9	359.	76.	51.1	8.1	-1474.1	-1506.2	-1506.2	-1506.2
MAGNETIC FIELD BY BX		33.3	33.3	360.	76.	51.8	8.1	-1506.2	-1538.3	-1538.3	-1538.3
MAGNETIC FIELD BY BY		33.7	33.7	361.	76.	52.5	8.1	-1538.3	-1570.4	-1570.4	-1570.4
MAGNETIC FIELD BY BX		34.1	34.1	362.	76.	53.2	8.1	-1570.4	-1602.5	-1602.5	-1602.5
MAGNETIC FIELD BY BY		34.5	34.5	363.	76.	53.9	8.1	-1602.5	-1634.6	-1634.6	-1634.6
MAGNETIC FIELD BY BX		34.9	34.9	364.	76.	54.6	8.1	-1634.6	-1666.7	-1666.7	-1666.7
MAGNETIC FIELD BY BY		35.3	35.3	365.	76.	55.3	8.1	-1666.7	-1700.0	-1700.0	-1700.0
MAGNETIC FIELD BY BX		35.7	35.7	366.	76.	56.0	8.1	-1700.0	-1731.1	-1731.1	-1731.1
MAGNETIC FIELD BY BY		36.1	36.1	367.	76.	56.7	8.1	-1731.1	-1763.2	-1763.2	-1763.2
MAGNETIC FIELD BY BX		36.5	36.5	368.	76.	57.4	8.1	-1763.2	-1795.3	-1795.3	-1795.3
MAGNETIC FIELD BY BY		36.9	36.9	369.	76.	58.1	8.1	-1795.3	-1827.4	-1827.4	-1827.4
MAGNETIC FIELD BY BX		37.3	37.3	370.	76.	58.8	8.1	-1827.4	-1859.5	-1859.5	-1859.5
MAGNETIC FIELD BY BY		37.7	37.7	371.	76.	59.5	8.1	-1859.5	-1891.6	-1891.6	-1891.6
MAGNETIC FIELD BY BX		38.1	38.1	372.	76.	60.2	8.1	-1891.6	-1923.7	-1923.7	-1923.7
MAGNETIC FIELD BY BY		38.5	38.5	373.	76.	60.9	8.1	-1923.7	-1955.8	-1955.8	-1955.8
MAGNETIC FIELD BY BX		38.9	38.9	374.	76.	61.6	8.1	-1955.8	-1987.9	-1987.9	-1987.9
MAGNETIC FIELD BY BY		39.3	39.3	375.	76.	62.3	8.1	-1987.9	-2020.0	-2020.0	-2020.0
MAGNETIC FIELD BY BX		39.7	39.7	376.	76.	63.0	8.1	-2020.0	-2052.1	-2052.1	-2052.1
MAGNETIC FIELD BY BY		40.1	40.1	377.	76.	63.7	8.1	-2052.1	-2084.2	-2084.2	-2084.2
MAGNETIC FIELD BY BX		40.5	40.5	378.	76.	64.4	8.1	-2084.2	-2116.3	-2116.3	-2116.3
MAGNETIC FIELD BY BY		40.9	40.9	379.	76.	65.1	8.1	-2116.3	-2148.4	-2148.4	-2148.4
MAGNETIC FIELD BY BX		41.3	41.3	380.	76.	65.8	8.1	-2148.4	-2180.5	-2180.5	-2180.5
MAGNETIC FIELD BY BY		41.7	41.7	381.	76.	66.5	8.1	-2180.5	-2212.6	-2212.6	-2212.6
MAGNETIC FIELD BY BX		42.1	42.1	382.	76.	67.2	8.1	-2212.6	-2244.7	-2244.7	-2244.7
MAGNETIC FIELD BY BY		42.5	42.5	383.	76.	67.9	8.1	-2244.7	-2276.8	-2276.8	-2276.8
MAGNETIC FIELD BY BX		42.9	42.9	384.	76.	68.6	8.1	-2276.8	-2308.9	-2308.9	-2308.9
MAGNETIC FIELD BY BY		43.3	43.3	385.	76.	69.3	8.1	-2308.9	-2340.0	-2340.0	-2340.0
MAGNETIC FIELD BY BX		43.7	43.7	386.	76.	69.9	8.1	-2340.0	-2372.1	-2372.1	-2372.1
MAGNETIC FIELD BY BY		44.1	44.1	387.	76.	70.6	8.1	-2372.1	-2404.2	-2404.2	-2404.2
MAGNETIC FIELD BY BX		44.5	44.5	388.	76.	71.2	8.1	-2404.2	-2436.3	-2436.3	-2436.3
MAGNETIC FIELD BY BY		44.9	44.9	389.	76.	71.8	8.1	-2436.3	-2468.4	-2468.4	-2468.4
MAGNETIC FIELD BY BX		45.3	45.3	390.	76.	72.4	8.1	-2468.4	-2500.5	-2500.5	-2500.5
MAGNETIC FIELD BY BY		45.7	45.7	391.	76.	73.0	8.1	-2500.5	-2532.6	-2532.6	-2532.6
MAGNETIC FIELD BY BX		46.1	46.1	392.	76.	73.6	8.1	-2532.6	-2564.7	-2564.7	-2564.7
MAGNETIC FIELD BY BY		46.5	46.5	393.	76.	74.2	8.1	-2564.7	-2596.8	-2596.8	-2596.8
MAGNETIC FIELD BY BX		46.9	46.9	394.	76.	74.8	8.1	-2596.8	-2628.9	-2628.9	-2628.9
MAGNETIC FIELD BY BY		47.3	47.3	395.	76.	75.4	8.1	-2628.9	-2660.9	-2660.9	-2660.9
MAGNETIC FIELD BY BX		47.7	47.7	396.	76.	76.0	8.1	-2660.9	-2693.0	-2693.0	-2693.0
MAGNETIC FIELD BY BY		48.1	48.1	397.	76.	76.6	8.1	-2693.0	-2725.1	-2725.1	-2725.1
MAGNETIC FIELD BY BX		48.5	48.5	398.	76.	77.2	8.1	-2725.1	-2757.2	-2757.2	-2757.2
MAGNETIC FIELD BY BY		48.9	48.9	399.	76.	77.8	8.1	-2757.2	-2789.3	-2789.3	-2789.3
MAGNETIC FIELD BY BX		49.3	49.3	400.	76.	78.4	8.1	-2789.3	-2821.4	-2821.4	-2821.4
MAGNETIC FIELD BY BY		49.7	49.7	401.	76.	79.0	8.1	-2821.4	-2853.5	-2853.5	-2853.5
MAGNETIC FIELD BY BX		50.1	50.1	402.	76.	79.6	8.1	-2853.5	-2885.6	-2885.6	-2885.6
MAGNETIC FIELD BY BY		50.5	50.5	403.	76.	80.2	8.1	-2885.6	-2917.7	-2917.7	-2917.7
MAGNETIC FIELD BY BX		50.9	50.9	404.	76.	80.8	8.1	-2917.7	-2949.8	-2949.8	-2949.8
MAGNETIC FIELD BY BY		51.3	51.3	405.	76.	81.4	8.1	-2949.8	-2981.9	-2981.9	-2981.9
MAGNETIC FIELD BY BX		51.7	51.7	406.	76.	82.0	8.1	-2981.9	-3014.0	-3014.0	-3014.0
MAGNETIC FIELD BY BY		52.1	52.1	407.	76.	82.6	8.1	-3014.0	-3046.1	-3046.1	-3046.1
MAGNETIC FIELD BY BX		52.5	52.5	408.	76.	83.2	8.1	-3046.1	-3078.2	-3078.2	-3078.2
MAGNETIC FIELD BY BY		52.9	52.9	409.	76.	83.8	8.1	-3078.2	-3110.3	-3110.3	-3110.3
MAGNETIC FIELD BY BX		53.3	53.3	410.	76.	84.4	8.1	-3110.3	-3142.4	-3142.4	-3142.4
MAGNETIC FIELD BY BY		53.7	53.7	411.	76.	85.0	8.1	-3142.4	-3174.5	-3174.5	-3174.5
MAGNETIC FIELD BY BX		54.1	54.1	412.	76.	85.6	8.1	-3174.5	-3206.6	-3206.6	-3206.6
MAGNETIC FIELD BY BY		54.5	54.5	413.	76.	86.2	8.1	-3206.6	-3238.7	-3238.7	-3238.7
MAGNETIC FIELD BY BX		54.9	54.9	414.	76.	86.8	8.1	-3238.7	-3270.8	-3270.8	-3270.8
MAGNETIC FIELD BY BY		55.3	55.3	415.	76.	87.4	8.1	-3270.8	-3302.9	-3302.9	-3302.9
MAGNETIC FIELD BY BX		55.7	55.7	416.	76.	88.0	8.1	-3302.9	-3335.0	-3335.0	-3335.0
MAGNETIC FIELD BY BY		56.1	56.1	417.	76.	88.6	8.1	-3335.0	-3367.1	-3367.1	-3367.1
MAGNETIC FIELD BY BX		56.5	56.5	418.	76.	89.2	8.1	-3367.1	-3400.2	-3400.2	-3400.2
MAGNETIC FIELD BY BY		56.9	56.9	419.	76.	89.8	8.1	-3400.2	-3432.3	-3432.3	-3432.3
MAGNETIC FIELD BY BX		57.3	57.3	420.	76.	90.4	8.1	-3432.3	-3464.4	-3464.4	-3464.4
MAGNETIC FIELD BY BY		57.7	57.7	421.	76.	91.0	8.1	-3464.4	-349		









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IMP-J POSITION IN GSE COORDINATES: X(-17.7), Y(-16.9), Z(-15.2) Page 11									
COORD.	COORD.	COORD.	MAGNETIC FIELD (GSE)	MAGNETIC FIELD (GSE)	MAGNETIC FIELD (GSE)	PLASMA	PLASMA	PLASMA	PRESSURE
X	Y	Z	BZ	BY	BX	N	T/1000	PHI	THETA
-206.	-398.	-75.	-99.	-99.	-99.	13.4	1.3	-118.6	1.3
-206.	-398.	-75.	-99.	-99.	-99.	53.	1.3	-125.7	1.3
-206.	-398.	-75.	-99.	-99.	-99.	42.3	1.3	-127.7	1.3
-206.	-398.	-75.	-99.	-99.	-99.	42.3	1.3	-128.6	1.3
-206.	-398.	-75.	-99.	-99.	-99.	42.3	1.3	-129.5	1.3
-206.	-398.	-75.	-99.	-99.	-99.	42.3	1.3	-130.4	1.3
-206.	-398.	-75.	-99.	-99.	-99.	42.3	1.3	-131.3	1.3
-206.	-398.	-75.	-99.	-99.	-99.	42.3	1.3	-132.2	1.3
-206.	-398.	-75.	-99.	-99.	-99.	42.3	1.3	-133.1	1.3
-206.	-398.	-75.	-99.	-99.	-99.	42.3	1.3	-134.0	1.3
-206.	-398.	-75.	-99.	-99.	-99.	42.3	1.3	-134.9	1.3
-206.	-398.	-75.	-99.	-99.	-99.	42.3	1.3	-135.8	1.3
-206.	-398.	-75.	-99.	-99.	-99.	42.3	1.3	-136.7	1.3
-206.	-398.	-75.	-99.	-99.	-99.	42.3	1.3	-137.6	1.3
-206.	-398.	-75.	-99.	-99.	-99.	42.3	1.3	-138.5	1.3
-206.	-398.	-75.	-99.	-99.	-99.	42.3	1.3	-139.4	1.3
-206.	-398.	-75.	-99.	-99.	-99.	42.3	1.3	-140.3	1.3
-206.	-398.	-75.	-99.	-99.	-99.	42.3	1.3	-141.2	1.3
-206.	-398.	-75.	-99.	-99.	-99.	42.3	1.3	-142.1	1.3
-206.	-398.	-75.	-99.	-99.	-99.	42.3	1.3	-143.0	1.3
-206.	-398.	-75.	-99.	-99.	-99.	42.3	1.3	-143.9	1.3
-206.	-398.	-75.	-99.	-99.	-99.	42.3	1.3	-144.8	1.3
-206.	-398.	-75.	-99.	-99.	-99.	42.3	1.3	-145.7	1.3
-206.	-398.	-75.	-99.	-99.	-99.	42.3	1.3	-146.6	1.3
-206.	-398.	-75.	-99.	-99.	-99.	42.3	1.3	-147.5	1.3
-206.	-398.	-75.	-99.	-99.	-99.	42.3	1.3	-148.4	1.3
-206.	-398.	-75.	-99.	-99.	-99.	42.3	1.3	-149.3	1.3
-206.	-398.	-75.	-99.	-99.	-99.	42.3	1.3	-150.2	1.3
-206.	-398.	-75.	-99.	-99.	-99.	42.3	1.3	-151.1	1.3
-206.	-398.	-75.	-99.	-99.	-99.	42.3	1.3	-152.0	1.3
-206.	-398.	-75.	-99.	-99.	-99.	42.3	1.3	-152.9	1.3
-206.	-398.	-75.	-99.	-99.	-99.	42.3	1.3	-153.8	1.3
-206.	-398.	-75.	-99.	-99.	-99.	42.3	1.3	-154.7	1.3
-206.	-398.	-75.	-99.	-99.	-99.	42.3	1.3	-155.6	1.3
-206.	-398.	-75.	-99.	-99.	-99.	42.3	1.3	-156.5	1.3
-206.	-398.	-75.	-99.	-99.	-99.	42.3	1.3	-157.4	1.3
-206.	-398.	-75.	-99.	-99.	-99.	42.3	1.3	-158.3	1.3









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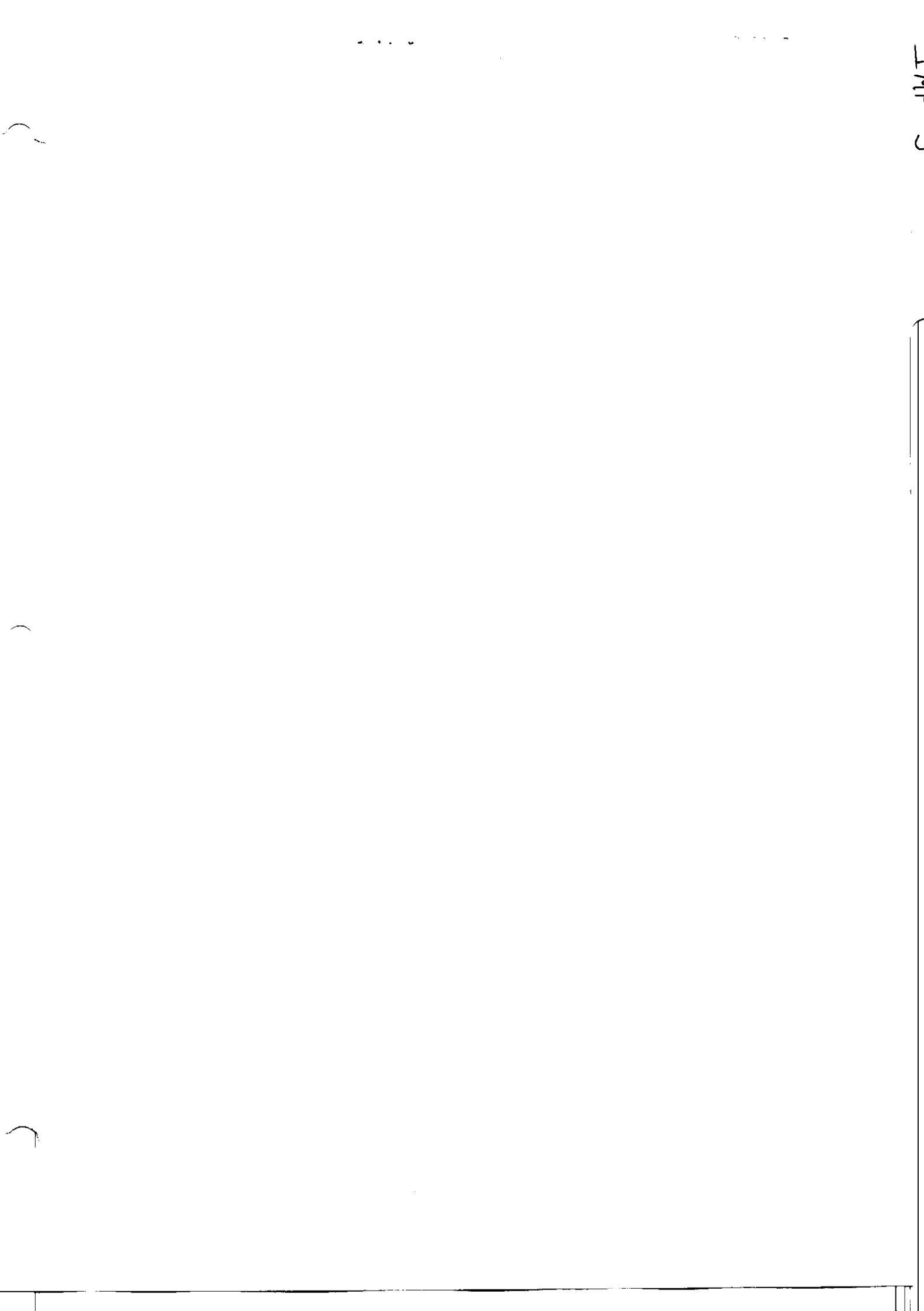
D-48998  
11/21/77 - 5/23/80

INPUT TAPE DATA INPUT	COPY ON MTI	FILE	1 RECORD	LENGTH	2700 BYTES
(	(	9)	00000000	30000000	00000000
(	(	43)	413E5863	412B820D	411C16EC
(	(	89)	40349E7	40216CE7	431AC060
(	(	120)	411A0F31	00000000	C52CB266
(	(	160)	33E7000	433E6A38	4E42D7F92
(	(	200)	00000000	C51124DA	C5333CF4
(	(	240)	42279437	C0E66636	402B35A3
(	(	280)	00000000	00000000	00000000
(	(	320)	41271590	C5173F6	C522DA1E
(	(	360)	0000004D	00000065	000000C3
(	(	400)	414390E6	413493EF	0173C44
(	(	440)	403E705B	401CCEF1	00000000
(	(	480)	F0009010	00000000	C52CBEE4
(	(	520)	4249UBAD	433F12EF	4C4DF729
(	(	560)	00000000	C51100000	00000000
(	(	600)	4222E415	C16AE072	413493E6
(	(	640)	00000000	00000000	401A075E
(	(	680)	41259C72	C5162EA8	C5200157
(	(	720)	0005004D	00000065	000000CD
(	(	760)	4146D528	413EDAC3	CA96258
(	(	800)	41153EE9	413000427	100000000
(	(	840)	00000000	00000000	00000000
(	(	880)	423C24C6	4325367B	4D968DDD
(	(	920)	00000000	C51BE891	C53339D4
(	(	960)	42120DF3C	C211C102	40D43E4E
(	(	1000)	66000000	00000000	40000000
(	(	1040)	411E0C8F	C514E336	C52000000
(	(	1080)	03A0004D	00000065	00000007
(	(	1120)	4143A411	4125F738	C129D4AF
(	(	1160)	4111E8B8	412B589	00000000
(	(	1200)	00000000	00000000	C52000000
(	(	1240)	422B36CD	43212424	4F12F399
(	(	1280)	00000000	C516B5FD	C5333577
(	(	1320)	42149439	C2195HDC	40ED18C5
(	(	1360)	00000000	00000000	40E11B68
(	(	1400)	411EA3CC	C5143F04	4E85F60A
(	(	1440)	0000004D	00000065	00000001
(	(	1480)	414A2C20	413D1A09	C114027V
(	(	1520)	411AC434	4139AFA8	00000000
(	(	1560)	00000000	00000000	C522ED63
(	(	1600)	423228BC	431C0000	4516E2E1
(	(	1640)	00000000	C5108BD2	C52000F2
(	(	1680)	41D43FDE	C2131E2A	408495F3
(	(	1720)	00000000	00000000	00000000
(	(	1760)	4113D92E	C514ACE2	C522C1328
(	(	1800)	3000004D	45000065	000000EB
(	(	1840)	414A84F5	413E4818	C1193452
(	(	1880)	4116E9CB	4152D520	00000000
(	(	1920)	00000000	00000000	C52DB8CJ
(	(	1960)	422BFF73	4314E67F	4F16F630
(	(	2000)	00000000	C5166500	C5333C43
(	(	2140)	411C34985	C218001E2	409339A2
(	(	2180)	10000000	10000000	4C373481
(	(	2210)	4115A28C	C51438A0	C52BCFEE
(	(	2260)	0000004D	00000065	000000F5
(	(	2270)	4149C5E	4126E93C	C114CE4D
(	(	2290)	41110DCBD	413F6D00	411212CF5
(	(	2264)	00000000	10000000	C522BFB3

FILE	INPUT RECS.	DATA RECORDS INPUT	MAX. SIZE	READ PERM	ERROR ZERO B	SUMMARY SHORT	UNDEF.	INPUT #RECS.	RETRIES	TOTAL # n
1	919	919	27968	0	0	"	"	0	0	0

DUMPDUMP STOPPED AFTER FILE 1 # OF PERMANENT READ ERRORS 0

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IMP-J

73-078A-01J,02H,10G

5 MINUTE IMF & PLASMA PARMS, UCLA

THIS DATA SET CONSISTS 6 TAPES. THE TAPES ARE 9-TRACK, 6250 BPI,  
WRITTEN IN ASCII. THE TAPES WERE CREATED ON THE IBM. THE TIME SPANS,  
AS WELL AS THEIR D AND C NUMBERS ARE LISTED BELOW:

D#	C#	TIME SPAN
---	---	-----
D-79344	C-27166	10/30/73-12/31/76
D-82660	C-27881	01/01/77-12/31/79
D-86835	C-29385	01/01/80-12/31/83
D-86836	C-29386	01/01/84-12/31/86
D-86837	C-29387	01/01/87-12/31/89
D-86838	C-29388	01/01/90-07/21/91

DATA = imp8\_5min\_77\_79.ffd  
 CDATE = 92 297 OCT 23 17:26:06 UPDATE = 92 297 OCT 23 17:40:24  
 RECL = 360  
 NCOLS = 26  
 NROWS = 240774  
 OPSYS = SUN/UNIX

#	NAME	UNITS	SOURCE	FORMAT
001	TIME	YR MON DY	HR MN SC MS	6I3.2,I4.3
002	BX GSM	nT	IMP-8	G13.5
003	BY GSM	nT	IMP-8	G13.5
004	BZ GSM	nT	IMP-8	G13.5
005	BT	nT	IMP-8	G13.5
006	X GSM	RE	IMP-8	G13.5
007	Y GSM	RE	IMP-8	G13.5
008	Z GSM	RE	IMP-8	G13.5
009	BY GSE	nT	IMP-8	G13.5
010	BZ GSE	nT	IMP-8	G13.5
011	Y GSE	RE	IMP-8	G13.5
012	Z GSE	RE	IMP-8	G13.5
013	Np	N/CM^3	IMP-8 (LANL)	G13.5
014	Vp	KM/SEC	IMP-8 (LANL)	G13.5
015	AZIMUTH	DEGREE	IMP-8 (LANL)	G13.5
016	Tpar(MAX)	K	IMP-8 (LANL)	G13.5
017	Tper(MIN)	K	IMP-8 (LANL)	G13.5
018	ALFRAC		IMP-8 (LANL)	G13.5
019	DP	nP	IMP-8 (LANL)	G13.5
020	Np	N/CM^3	IMP-8 (MIT)	G13.5
021	Vp	KM/SEC	IMP-8 (MIT)	G13.5
022	AZIMUTH	DEGREE	IMP-8 (MIT)	G13.5
023	LAT	DEGREE	IMP-8 (MIT)	G13.5
024	Temp	K	IMP-8 (MIT)	G13.5
025	ALFRAC		IMP-8 (MIT)	G13.5
026	DP	nP	IMP-8 (MIT)	G13.5

#### ABSTRACT

FIRST TIME = 77 001 JAN 1 00:00:00.000

LAST TIME = 79 365 DEC 31 23:55:00.000

OWNER = UCLA/IGPP

MISSING DATA FLAG = 1.000000E+34

AVERAGE INTERVAL = 00:05:00.000

Data Source: Institute of Geophysics and Planetary Physics, UCLA

Temp=60.5\*(Thermal Speed)^2

ALFRAC=ratio of alpha current to proton peak current

DP(Dynamic Pressure)=1.6726E-6\*Np\*Vp^2

END

D-86836 12/31/86

01/01/84-

73-078A-01J02H,100

IXE.TPLIST.E\$

INPUT PARAMETERS ARE: AS SR=1=3 1 1

TAPE NC. 1 FILE NC. 1  
RECRE 1 LENGTH 752  
ATA = imp86\_min8486.fifo

UPDATE = 92 297 OCT 23 19:05:43  
CDATE = 92 297 OCT 23 19:05:43

RECL = 36

) NCOLS =  
26

) NFCLASS = 151765

) OPSYS = SUN/UNIX

SOURCE FORMAT

) J1 TIME. YR MON DY HR MN SC MS  
.14.2

12 EX GSM nT IMP-8

-E 613.5

) 4 E2 GSM rI IMP-8  
5 ET nT IMP-8

) 613.5

613.5

47 Y GSM RE IMP-8

INF-E

008 Z GS

RE IMP-8

G13•5

IMP-8

NT

G13•5

1 E2 GSE INF-8

IMP-8

G13•5

12 Z GSE RE

G13•5

J13 NF N/CN<sup>2</sup> IMP-8 (LANL)

G13•5

-8 (LANL) 613•5

G13•5

15 AZIMUTH DEGREE IMP-8 (LANL)

G13•5

) TAPE NO. 1 FILE NO. 1  
RECORD 2 LENGTH 792  
J16 Tpar(MAX) K IMP-8 (LANL)

G13•5

J17 Tper(MIN) K IMP-8 (LANL)

G13•5

18 ALERAC IMP-8 (LANL)

G13•5

RF

G13•5

N/CN<sup>2</sup> IMP-8 (MIT)

G13•5

2 NP IMP-8 (MIT)

G13•5

J22 AZIMUTH DEGR

G13•5

J23 LAT DEGREE IMP-8 (MIT)

G13•5

J24 Temp K

G13•5

14

425 ALFRAC

၁၂၅

INP-8 (MIT)

np

AESTRACT

卷之三

LAST TIME

卷之三

MISSING STATION = 1 - 0000000000000000

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CODE OF GEOPHYSICS AND PLANETARY PHYSICS • EICLA

ALFBERG RATIO OF alpha current to proton peak current

DP (Dynamic pressure) = 1.06726

END  
FILE NO. 1  
LENGTH 752  
TAPE NO. 1  
RECOR 3  
RECLOC 0

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• 10

VF IN 1  
K2 IN 2  
X5 TBL TEST